wheel hubs, and relies on Varela for teaching this feature. Specifically, the examiner argues that Varela teaches planetary gearing located within a wheel hub assembly 110, 120, 131, etc., and that it would be obvious to modify the arrangement taught by Anglada with the planetary system of Varela. Applicant disagrees.

There is no motivation or suggestion to modify Anglada in the manner described by the examiner. Further, as detailed below, Varela actually teaches away from the proposed modification. One problem identified in Varela concerned a planetary gear set and wet disc brake combination having an external diameter limited by the wheel hub. This limitation resulted in planetary gears having large gear widths, and the wet disc brake requiring a large number of brake discs, both of which were undesirable. See column 2, lines 5-8. Varela solved this problem by moving the planetary gear set and the wet disc brake away from the wheel hub such that these components were no longer limited by the wheel pilot of the wheel hub. See column 3, lines 62-64.

To achieve the desired configuration, Varela discloses an axle shaft 50 that drives a sun gear 70, which is in meshing engagement with a plurality of planet gears 80. The planet gears 80 engage planetary ring gear 90, which is fixed to axle housing 60. Varela also discloses a wet disc brake assembly 130 that is enclosed within a brake housing 131. The brake housing 131 is positioned between the axle housing 60 and the planetary ring gear 90. Also fixed to the planetary ring gear 90 is wheel bearing cage 120 for supporting a plurality of wheel bearings 121. The planetary gears 80 are supported on planet shafts 81 that are fixed to planet spider 100. Planet spider 100 drives output shaft 101, which drives wheel hub 110.

As shown in Figure 5, the planetary gear set is clearly positioned at an inboard location, away from the wheel hub 110 and close to the end of the axle housing 60. This allows the external diameter of the planetary ring gear 90 and the brake housing 131 to be as large as needed because there is no interference with wheel hub 110, which provides the beneficial structure desired by Varela. Thus, Varela teaches away from the configuration that the examiner seeks to achieve by modifying Anglada with Varela.

Claims 23-27, 36, and 38 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Anglada (US 1540526) in view of Varela. Again, the examiner argues that Varela teaches planetary gearing located within a wheel hub assembly, and that it would be obvious to modify the arrangement taught by Anglada with the planetary system of Varela. For the reasons set forth above, Varela teaches away from this combination. Thus, the rejections of claims 23-27, 36, 38, and 30 are improper and must be withdrawn.

Finally, applicant would like to again reiterate that here is absolutely no requirement that a transverse element be orthogonal. Further, the examiner's comments with regard to the term "transverse" as set forth in the Response To Comments section of the subject official action are irrelevant to the claims and do not set forth a proper basis for defining the term "transverse." Examiner is improperly narrowing the term "transverse." Terms such as "orthogonal" and "perpendicular" are configurations that are covered by the term "transverse," however, there is nothing in the application that limits the claims to this interpretation.

Applicant believes that all pending claims are now in condition for allowance. An indication of such is requested. Applicant believes that no additional claim fees are due,

however, if additional fees are required the Commissioner is authorized to charge Deposit Account No. 50-1482 in the name of Carlson, Gaskey & Olds.

Respectfully submitted,

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CERTIFICATE OF TRANSMISSION UNDER 37 CFR 1.8

I hereby certify that this correspondence is being facsimile transmitted to the United States patent and Trademark Office, fax number (703) 872-9306, on December 2, 2004.

Laura Combs